

22. (Amended) A blue soda-lime colored glass composed of glass-forming principal components and of coloring agents, characterized in that it comprises from 0.15 to 1.1% by weight of Fe_2O_3 , has a redox factor not exceeding 45% and presents a dominant wavelength (λ_D) between 491 and 493 nm, including the endpoints of that range, and a light transmission (TLA4) and an excitation purity (P) which satisfy the relationship $P > -0.3 \times \text{TLA4} + 24.5$ and comprises amongst its coloring agents less than 0.1% by weight of TiO_2 .

23. The colored glass as claimed in Claim 22 and further including at least one of the following features (A) through (D)

(A) a light transmission (TLA4) of greater than or equal to 55%;

(B) a light transmission (TLA4) and an excitation purity (P) which satisfy the relationship $P > -0.3 \times \text{TLA4} + 26.5$;

(C) as coloring agents, a compound of at least one of the elements Cr, Ce, Co, Se, V, Ti, Mn;
and

(D) it comprises the following percentages by weight of coloring agents, the total amount of iron being expressed in the form of Fe_2O_3 :

Fe_2O_3	0.3 – 1.1%
FeO	0.10 - 0.30%
Co	0 – 0.0040%
Cr_2O_3	0 – 0.0500%
V_2O_5	0 – 0.0500%

and has the following optical properties:

$$55\% < \text{TLA4} < 85\%$$

$$36\% < \text{TE4} < 60\%$$

P < 12%.

24. The colored glass as claimed in Claim 23 and further including at least two of the features (A) through (D).

25 The colored glass as claimed in Claim 23 and further including all of the features (A) through (D).

26. (Amended) The colored glass as claimed in Claim 22 and further including at least one of the following features (E) and (F):

B2 (E) it comprises amongst its coloring agents less than 0.1% by weight of TiO_2 ;

(F) it comprises less than 0.5% by weight of CeO_2 ;

(G) it comprises less than 0.13% by weight of MnO_2 .

27. The colored glass as claimed in Claim 22, characterized in that it has a light transmission (TLA4) of greater than or equal to 70%.

28. The colored glass as claimed in Claim 23 wherein it further comprises one of the following features (H) through (K):

(H) the following percentages by weight of coloring agents, the total amount of iron being expressed in the form of Fe_2O_3 :

Fe_2O_3	0.3 – 0.7%
FeO	0.10 - 0.20%

Co 0 – 0.0020%

and has the following optical properties:

$$72\% < \text{TLA4} < 85\%$$

$$49\% < \text{TE4} < 60\%$$

$$3\% < P < 9\%;$$

- (I) the following percentages by weight of coloring agents, the total amount of iron being expressed in the form of Fe_2O_3 :

Fe_2O_3 0.4 – 0.6%

FeO 0.11 - 0.16%

Co 0 – 0.0015%

and has the following optical properties:

$$74\% < \text{TLA4} < 80\%$$

$$51\% < \text{TE4} < 58\%$$

$$3\% < P < 7\%$$

$$\lambda_D \leq 492 \text{ nm};$$

- (J) the following percentages by weight of coloring agents, the total amount of iron being expressed in the form of Fe_2O_3 :

Fe_2O_3 0.4 – 0.8%

FeO 0.16 - 0.23%

Co 0 – 0.0030%

and has the following optical properties:

$$70\% < \text{TLA4} < 77\%$$

$$39\% < \text{TE4} < 50\%$$

$$4\% < P < 10\%; \text{ or}$$

(K) the following percentages by weight of coloring agents, the total amount of iron being expressed in the form of Fe_2O_3 :

Fe_2O_3 0.55 – 0.75%

FeO 0.16 - 0.23%

Co 0 – 0.0020%

and has the following optical properties:

$70\% < \text{TLA4} < 74\%$

$41\% < \text{TE4} < 48\%$

$6\% < P < 9\%$

$\lambda_D \leq 492 \text{ nm.}$

29. The colored glass as claimed in claim 22, characterized in that it has a light transmission (TLA4) of less than 70%.

30. The colored glass as claimed in claim 22, further characterized by one of the following (L) through (N):

(L) it comprises less than 0.01%, preferably less than 0.0050%, by weight of V_2O_5 and less than 0.0020%, preferably less than 0.0015%, by weight of Cr_2O_3 ;

(M) it comprises the following percentages by weight of coloring agents, the total amount of iron being expressed in the form of Fe_2O_3 :

Fe_2O_3 0.6 – 1.1%

FeO 0.20 - 0.30%

Co 0 – 0.0040%

and has the following optical properties:

$$55\% < \text{TLA4} < 69\%$$

$$30\% < \text{TE4} < 47\%$$

$$6\% < \text{P} < 12\%;$$

(N) it comprises the following percentages by weight of coloring agents, the total amount of iron being expressed in the form of Fe_2O_3 :

$$\text{Fe}_2\text{O}_3 \quad 0.75 - 0.95\%$$

$$\text{FeO} \quad 0.22 - 0.28\%$$

$$\text{Co} \quad 0 - 0.0030\%$$

and has the following optical properties:

$$63\% < \text{TLA4} < 69\%$$

$$36\% < \text{TE4} < 45\%$$

$$7\% < \text{P} < 11\%$$

$$\lambda_D \leq 492 \text{ nm.}$$

31. The colored glass as claimed in Claims 22, characterized in that it forms a motor-vehicle window.

33. The colored glass as claimed in Claim 22 further characterized by a dominant wavelength (λ_D) of less than or equal to 492 nm.

34. The colored glass as claimed in Claim 22 further characterized in that it comprises less than 1.0% by weight of Fe_2O_3 .

Add the following new claims 35 - 37.

-- 35. A blue soda-lime colored glass composed of glass-forming principal components and of coloring agents, characterized in that it comprises from 0.15 to 1.1% by weight of Fe_2O_3 , has a redox factor not exceeding 45% and presents a dominant wavelength (λ_D) of between 490 and 493 nm and a light transmission (TLA4) and an excitation purity (P) which satisfy the relationship $P > -0.3 \times \text{TLA4} + 24$;

β3 further comprising the following percentages by weight of coloring agents, the total amount of iron being expressed in the form of Fe_2O_3 :

Fe_2O_3	0.3 – 1.1%
FeO	0.10 - 0.30%
Co	0 – 0.0040%
Cr_2O_3	0 – 0.0500%
V_2O_5	0 – 0.0500%

and has the following optical properties:

$$55\% < \text{TLA4} < 85\%$$

$$36\% < \text{TE4} < 60\%$$

$$P < 12\%; \text{ and}$$

the colored glass has a light transmission (TLA4) of less than 70%.

36. A blue soda-lime colored glass composed of glass-forming principal components and of coloring agents, characterized in that it comprises from 0.15 to 1.1% by weight of Fe_2O_3 , has a redox factor not exceeding 45% and presents a dominant wavelength (λ_D) of between 490 and 493 nm and a light transmission (TLA4) and an excitation purity (P) which satisfy the relationship

$P > -0.3 \times \text{TLA4} + 24.5$; and further comprising the following percentages by weight of coloring agents, the total amount of iron being expressed in the form of Fe_2O_3 :

Fe_2O_3	0.3 – 0.7%
FeO	- 0.10 - 0.20%
Co	0 – 0.0020%

and having the following optical properties:

$$72\% < \text{TLA4} < 85\%$$

$$49\% < \text{TE4} < 60\%$$

$$3\% < P < 9\%.$$

B3

37. A blue soda-lime colored glass composed of glass-forming principal components and of coloring agents, characterized in that it comprises from 0.15 to 1.1% by weight of Fe_2O_3 , has a redox factor not exceeding 45% and presents a dominant wavelength (λ_D) of between 490 and 493 nm and a light transmission (TLA4) and an excitation purity (P) which satisfy the relationship $P > -0.3 \times \text{TLA4} + 24.5$; and further comprising the following percentages by weight of coloring agents, the total amount of iron being expressed in the form of Fe_2O_3 :

Fe_2O_3	0.4 – 0.8%
FeO	0.16 - 0.23%
Co	0 – 0.0030%

and having the following optical properties:

$$70\% < \text{TLA4} < 77\%$$

$$39\% < \text{TE4} < 50\%$$

$$4\% < P < 10\%.$$